

Amendments to the Drawings:

Corrected drawings FIGS. 12A, 12B, 12C, and 12D, are submitted herewith for approval. Corrections are indicated in red ink on the annotated sheet showing changes.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS

Claims 1-7 are pending.

Claims 1-7 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention.

Claims 1-7 stand rejected under 35 USC §102(b) as being allegedly anticipated by Someya (US 5,267,348).

Changes in the Drawings:

The drawings have been amended in response to the Examiner's request for the purpose of overcoming the Examiner's objection. Specifically, FIG. 12 has been amended to read "FIG. 12A", "FIG. 12B", "FIG. 12C", and "FIG. 12D" under each corresponding drawing. Applicant therefore requests that the objection to the Drawings be withdrawn.

No new matter has been added. Approval of the corrections is respectfully requested.

Changes in the Specification:

The specification has been amended for the purpose of improving the readability of the application and are of a clerical, typographical or grammatical nature. No new matter has been added.

References on page 34 and 35 have been deleted.

Changes in the Abstract:

The Abstract has been amended in accordance with the Examiner's suggestion.

"Figure 1" in the Abstract has been deleted.

Changes in the Claims:

Claims 1-3 have been amended in this application to further particularly point out and distinctly claim subject matter regarded as the invention.

Support for amendments to Claim 1 are based on the specification from page 14, line 17 to page 15, line 5. No new matter has been added.

Claims 4-7 have been canceled.

Rejection under 35 USC §112, second paragraph – claims 1-7

Claims 1-7 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. This rejection is respectfully traversed. Because Claims 4-7 has been canceled, the present rejection is moot for Claims 4-7.

MPEP §2171 identifies two separate requirements: (1) the claims must set forth the subject matter that applicants regard as their invention; and (2) the claims must particularly point out and distinctly define the meets and bounds of the subject matter that will be protected by the patent grant. A lack of antecedent basis may be found if a claim is "indefinite" because "it contains words or phrases whose meaning is unclear"; see MPEP §2173.05(e).

The Office Action alleges that the claim 1 is an omnibus claim. Also, the Office Action alleges that the claims are generally narrative and indefinite. Accordingly, Claim 1 has been amended to further particularly point out and distinctly claim subject matter regarded as the invention.

The claims now meet the statutory requirements.

Rejection under 35 USC §102(b) – claims 1-7

Claims 1-7 stand rejected under 35 USC §102(b) as being allegedly anticipated by Someya (US 5,267,348). The rejection to Claims 4-7 is now moot because Claims 4-7 have been canceled. This rejection is respectfully traversed.

A claim must be anticipated for a proper rejection under §102(a), (b), and (e). This requirement is satisfied “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”; see MPEP §2131 and *Verdegaal Bros. V. Union Oil*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1984). A rejection under §102(b) may be overcome by showing that the claims are patentably distinguishable from the prior art; see MPEP §706.02(b).

Someya describes a fuzzy evaluation and modification system evaluates and modifies the fuzzy knowledge in a fuzzy reasoning system. However, Someya does **not** describe or teach a system of artificial intelligence for classification of events giving rise to **geophysical recordings**. In particular, Someya does **not** teach several independent processing branches merged by a high level decisional system where the branches include a **neuro-fuzzy classifier**, making its decision from high level properties of events and lower level parameters extracted from the signals by procedures of a signal

processing type, **a fuzzy expert system**, taking a decision in an independent way from the same information, and able to explain its decision to a user through an intermediary of rules selected by order of applicability to the events being processed, **a neural network** with local connections and shared weights, constituted of banks of non-linear adaptable filters, itself extracting the relevant information for time-frequency representations from signals corresponding to the events, and wherein these branches configure themselves automatically by statistical learning on a database of said events.

The presently claimed invention is, accordingly, distinguishable over the cited reference. In the view of the foregoing, it is respectfully asserted that claims 1-3 are now in condition for allowance.

Conclusion

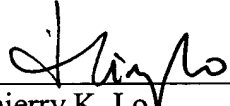
For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the prior art. Therefore, Applicants submit that this application is now in condition for allowance.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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ANNOTATED SHEET SHOWING CHANGES
10/12

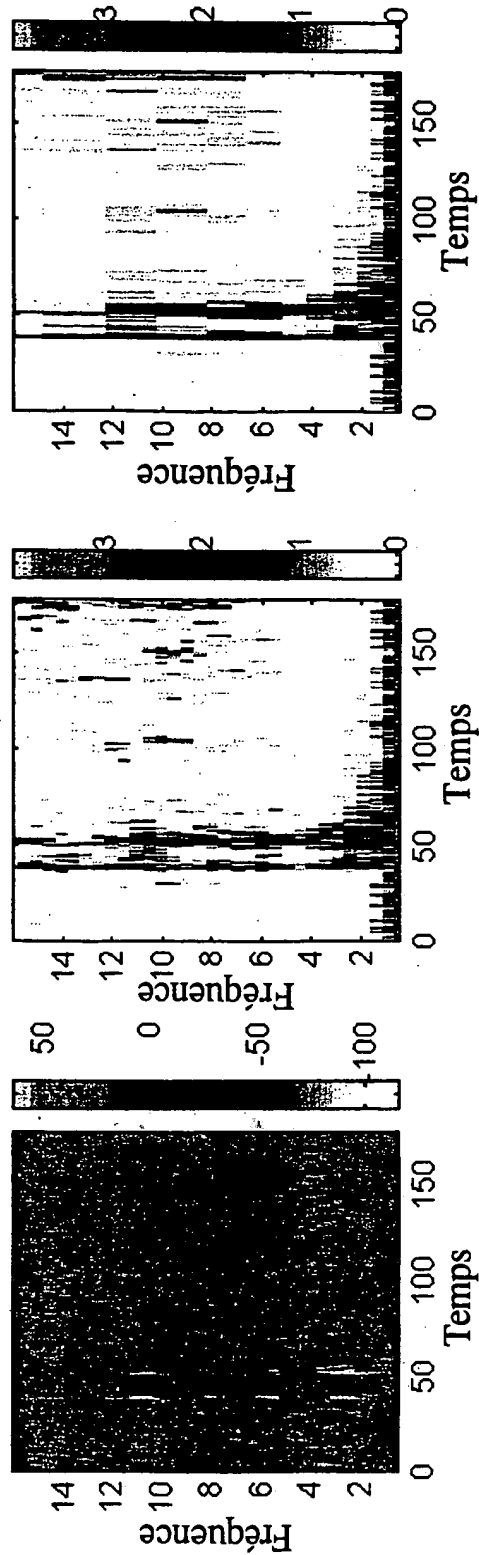
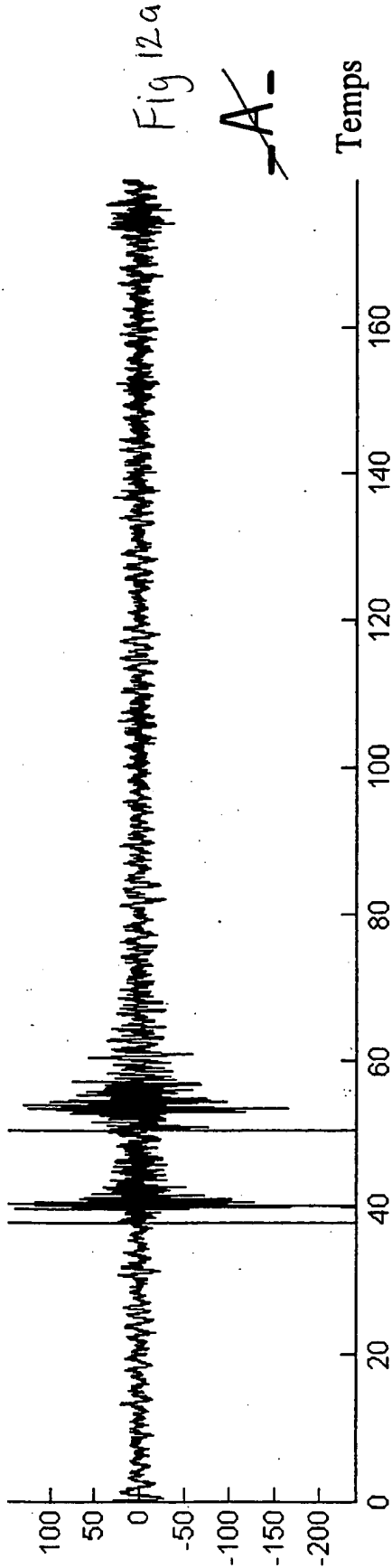


FIG. 12